



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,481	09/14/2005	Markku Leskela	LAIN - 092	3854
20374	7590	10/06/2008	EXAMINER	
KUBOVCIK & KUBOVCIK SUITE 1105 1215 SOUTH CLARK STREET ARLINGTON, VA 22202			CORDRAY, DENNIS R	
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			10/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,481	Applicant(s) LESKELA ET AL.	
	Examiner DENNIS CORDRAY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites a middle layer and surface layers wherein a mechanical pulp coarser than that used for forming the surface layer is used for forming the bottom layer. It is not clear if the bottom layer is intended to be one of the surface layers or the middle layer.

Response to Arguments

Applicant's amendments, filed 6/25/2008, have overcome the rejection of claims 1, 3-12, 14 and 15 under 35 U.S.C. 102(e). Therefore, the rejection has been withdrawn.

Applicant's arguments regarding the remaining rejections over the cited prior art have been fully considered but they are not persuasive. The rejections are maintained and have been modified to address the amendments. In addition, due to the amendments, new grounds of rejection are made as detailed below.

Regarding the argument against US 2004/0168779 as prior art under 35 U.S.C. 102(e), the following is a reproduction of the relevant portion of 35 U.S.C. 102:

A person shall be entitled to a patent unless —

(e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language;

The reference, US 2004/0168779, is based on the National Stage (371) filing of PCT/FI02/00342, filed April 24, 2002 (not April 22, 2004), which designated the United States and was published in English on November 21, 2002 as WO 02/092910. US 2004/0168779 is thus valid as prior art under 35 U.S.C. 102(e). It is also noted that WO 02/092910 is available as prior art under 35 U.S.C. 102(a).

Applicant argues that the use of the filler of the claimed invention improves formation and structural stiffness of the surface layers, that the products are denser and have improved resistance to air permeability, and that the surface smoothness is improved.

The evidence provided consists of two examples of three-layered papers (basis weight 35-37 gsm) having outer layers comprising SuperFill filler containing 67.5% PCC and made according to Example 1 of FI Patent Specification No. 100729. These papers were compared to similar three-layered papers having outer layers comprising a commercial PCC filler and with a single-layer paper comprising SuperFill filler. The filler

content in the sheets was 12-15%. In another set of comparisons, one-layer sheets having a basis weight of 62 gsm were made using a commercial PCC or SuperFill fillers containing varying amounts of PCC.

The showing of unexpected properties is not convincing. A translation of FI Patent Specification No. 100729 is not provided for review, thus the Examiner does not know if the filler used corresponds to that of the instant claims. The showing using a single filler in two similar 3-layered paper products is not commensurate in scope with the claims, which embody 3-layered papers having a broad range of gramages and containing a broad range of weight distribution between layers, the outer layers having any percentage of a filler, which is made from fibrils having a broad range of physical dimensions and having a broad range in percentage of any of a variety of light scattering material particles deposited on them. The examples comparing one-layer papers with filler throughout can only add minimal support to advantages of filled surface layers.

In accordance with MPEP 804, the Provisional Double Patenting rejections will continue to be made as long as there are conflicting claims in more than one application unless the "provisional" double patenting rejection is the only rejection remaining in at least one of the applications.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1791

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-11 and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Silenius et al (US 2004/0168779) in view of Begemann et al (EP 0824157, machine translation enclosed and used herein) and further in view of Peel et al (Paper Science and Paper Manufacture).

Claims 1, 7 and 13: Silenius et al ('779) discloses a process for producing a multilayered fibrous product having a grammage of about 50 to 500 g/m², the process comprises fitting on top of a fibrous backing layer a filler-containing fibre layer, which forms the surface of the fibre product and covers the back layer. Three layered structures are disclosed (p 3, par 41). The grammage of the top layer can generally be about 20 g/m² (p 3, par 46).

The top layer is formed from slush of fibre material, to which a product comprising cellulose or lignocellulose fibrils, on which light scattering material particles have been precipitated, is added as a filler (Abs; p 1, pars 1, 3 and 16; p 3, pars 39 and 43; claim 12). The amount of light scattering particles deposited on the filler is from approximately 0.1 to 90% by weight of the amount of filler (p 2, par 31). The disclosed filler provides the advantages of good retention, lower grammage and increased opacity and formation over layers made using mineral fillers (pp 1-2, par 17; p 3, par 44).

Silenius et al ('779) does not disclose forming the multilayered product using the claimed headbox. Silenius et al ('779) also does not disclose a fiber layer containing a filler on both sides of a middle fiber layer. or that the middle and two surface layers each comprise a mixture of chemical and mechanical pulps

Begemann et al discloses a process for forming a multilayer fibrous web, which can be a printing paper comprising surface layers loaded with a filler, using multi-ply technology in the form of a headbox having multiple fiber suspension feeds, the suspensions supplied to the outer layers (loaded with a filler) serve the purpose of improving the printability of the web. The suspension feeds are separated from one another and combined immediately before the lip of the headbox. The process produces papers with higher amounts of filler at the surfaces resulting in better printability and low filler content in the center layer resulting in higher strength (p 1, all; p 2, 2nd to 4th pars; p 6, middle pars describing Fig. 8, Fig. 8).

Begemann et al does not disclose that the middle and two surface layers each comprise a mixture of chemical and mechanical pulps.

Peel et al teaches that typical fiber compositions for printing papers comprise mixtures of chemical and mechanical pulp (Table 2.2).

The art of Silenius et al ('779), Begemann et al, Peel et al and the instant invention is analogous as pertaining to making multilayered fibrous webs and printing paper. It would have been obvious to one of ordinary skill in the art to form a three-layered paper having a fiber layers comprising filler on both sides of a center layer in the process of Silenius et al in view of Begemann et al and further in view of Peel et al to provide a paper with better formation, opacity and printability. It would also have been obvious to use the claimed multilayered headbox to form the multilayered paper as a functionally equivalent method to form papers having surface layers comprising fillers. Using mixed chemical and mechanical pulps in each layer would have been obvious as

Art Unit: 1791

typical fiber compositions used for printing paper. The surface layers comprising a filler having highly refined and screened pulp material inherently or obviously have a pulp of lesser coarseness than the middle layer. Alternatively, Begemann et al discloses using a fibrous suspension with a higher meal degree (more refined) in the surface layers than in the center layer, thus the center layer comprises rougher pulp (p 4, 6th par from bottom).

Claims 3-4: Silenius et al ('779) discloses that the filler comprises cellulose or lignocellulose fibrils produced by refining cellulose or mechanical pulp fibers. The fibrils have an average thickness of is less than 5 μm and correspond to a fraction that passes a 100-Mesh screen (thus inherently pass a 50-Mesh screen) or have an average thickness of from 0.1 to 10 μm and an average length from 10 to 1500 μm (p 1, pars 11 and 13; p 2, pars 27-29).

Claims 5-6: Silenius et al ('779) discloses that the light scattering particles are precipitated in an aqueous phase, and can be calcium carbonate, calcium sulphate, barium sulphate and calcium oxalate (p 1, par 13).

Claims 9 and 14-15: Silenius et al ('779) discloses that the distribution of weight between the top (surface) layers and back (middle) layers is about 20:80 to 40:60 (p 3, par 44).

Claims 10 and 11: Silenius et al ('779) discloses that the surface and back layers can be produced from chemical and mechanical pulps (p 3, pars 43 and 46).

Claims 1, 3-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Begemann et al in view of Silenius et al (US 2001/0000063) and further in view of Peel et al (Paper Science and Paper Manufacture).

Claims 1 and 5-7: Begemann et al discloses a process for forming a fibrous web, which can be a printing paper, having at least three layers and comprising surface layers loaded with a filler. The web is produced using multiply technology in the form of a headbox having multiple material suspension feeds, which are separated from one another and combined immediately before the lip of the headbox. The suspensions supplied to the surface layers (loaded with a filler) serve to improve the printability of the web (p 1, all; p 6, middle pars describing Fig. 8, Fig. 8).

Begemann et al does not disclose the claimed filler, the grammage of the paper or the claimed fiber composition of each layer.

Silenius et al ('063) discloses a filler used in paper manufacture comprising a comprising calcium carbonate aggregates (light scattering particles) precipitated from an aqueous solution onto cellulose noil fibrils (Abs; p 2, pars 23, 26 and 27). The mass ratio of calcium carbonate to noil fibrils is from 13.5% to 2700%, which significantly overlays the claimed range of a maximum of 85% (Claim 6). Silenius et al ('063) teaches multiple advantages of using the inventive filler, including higher retention of the calcium carbonate over conventional precipitated calcium carbonate, better optic properties, greater strength, lower grammage and reduced overall paper manufacturing costs over prior art calcium carbonate based fillers (p 1, pars 6-11).

Art Unit: 1791

Silenius et al ('063) does not disclose the claimed filler, the grammage of the paper or the claimed fiber composition of each layer.

The grammage printing papers in the art is typically from about 40 to 150 g/m² (Peel et al, pp 18-19, Table 2.2). Peel et al also teaches that typical fiber compositions for printing papers comprise mixtures of chemical and mechanical pulp.

The art of Begemann et al, Silenius et al ('063), Peel et al and the instant invention is analogous as pertaining to fillers used in printing papers. It would have been obvious to one of ordinary skill in the art to use the claimed filler in the product of Begemann et al view of Silenius et al ('063) to obtain a surface layer having good optical properties, strength and retention and to reduce the costs of paper manufacturing. Making a printing paper of the claimed grammage would also have been obvious to one of ordinary skill in the art a typical grammage in the art for such papers. Using mixed chemical and mechanical pulps in each layer would further have been obvious as typical fiber compositions used for printing paper.

Claims 3 and 4: Silenius et al ('063) discloses that the noil fibrils are produced by refining cellulose fibers, have a thickness from 0.1-2 μm , a length from 10-400 μm and have a preferred screened fraction of from P100 -P400, or from 100 to 400 Mesh (p 1, par 15; p 2, pars 24, 25 and 27). The fibril dimensions significantly overlap the claimed dimensions. Fibrils passing through a 100 Mesh screen will inherently pass through a 50-Mesh screen.

Claims 9-11 and 14-15: Begemann et al discloses a process of producing a web having at least three layers metered through three nozzles and three control devices (p

Art Unit: 1791

6, middle pars describing Fig. 8, Fig. 8). Begemann et al does not disclose the grammage of the separate layers or their respective weight ratios. However, it would at least have been obvious to one of ordinary skill in the art to make the layers of equal grammage as a functionally equivalent option and to obtain a paper having the claimed ratios between surface and middle layers and, using the range of typical grammages of printing papers, the claimed grammage of a surface layer.

Claim 13: Begemann et al discloses using a fibrous suspension with a higher meal degree (more refined) in the surface layers than in the center layer, thus the center layer comprises rougher pulp (p 4, 6th par from bottom). Alternatively, the surface layer or layers comprising filler obviously have a pulp (the highly refined and screened pulp material of the filler) of lesser roughness than the middle layer.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Art Unit: 1791

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/475773 in view of Begemann et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the copending application and those the instant invention recite multilayered fibrous products comprising the same filler. The instant claims recite the grammage of a paper, thus are a species of the copending claims. It would have been obvious to one of ordinary skill in the art to make a paper of the claimed grammage using the process of the copending application as a typical grammage used in the art. It would also have been obvious to use the multi-layer headbox of Begemann et al to form the paper.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 1791

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791

Application/Control Number: 10/532,481
Art Unit: 1791

Page 13

/Dennis Cordray/
Examiner, Art Unit 1791